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FILE 'USPAT' ENTERED AT 15:06:25 ON 07 OCT 1997
L1 10062 S COHERENT(3A) (ILLUMINAT? OR LIGHT OR LASER OR SOURCE)
L2 63667 S SCATTER?
L3 2732 S L2 AND L1
L4 1230 S FRINGE(4A) (DETECT? OR SENS? OR MEASUR?)
L5 114 S L4 AND L3
L6 1780 S FRINGE#(4A) (DETECT? OR SENS? OR MEASUR?)
L7 181 S L3 AND L6
L8 93276 S (SURFACE OR PLATE OR SHEET OR AREA) (4A) (MOVEMENT OR MOTI
ON)
L9 13 S L8 AND L7

=> d 1-

1. 5,438,402, Aug. 1, 1995, System and method for measuring the interface tensile strength of planar interfaces; Vijay Gupta, 356/35.5, 32, 345, 353 [IMAGE AVAILABLE]
2. 5,426,498, Jun. 20, 1995, Method and apparatus for real-time speckle interferometry for strain or displacement of an object surface; Steven R. J. Brueck, et al., 356/35.5; 73/800; 356/357 [IMAGE AVAILABLE]
3. 5,357,341, Oct. 18, 1994, Method for evaluating interferograms and interferometer therefor; Michael Kuchel, et al., 356/353, 360 [IMAGE AVAILABLE]
4. 5,151,750, Sep. 29, 1992, Alignment apparatus; Nobutaka Magome, et al., 356/401; 257/797 [IMAGE AVAILABLE]
5. 4,884,283, Nov. 28, 1989, Ring laser gyroscope mirror orientation system and method; John Rahn, et al., 372/107; 356/350; 372/94 [IMAGE AVAILABLE]
6. 4,696,574, Sep. 29, 1987, Precision remote location of a movable point employing light interference fringes; Carl M. Penney, 356/375, 373; 901/47 [IMAGE AVAILABLE]
7. 4,591,996, May 27, 1986, Apparatus and method for determining stress and strain in pipes, pressure vessels, structural members and other deformable bodies; Reginald I. Vachon, 364/508; 73/800; 356/35.5, 360; 376/245, 248 [IMAGE AVAILABLE]
8. 4,470,696, Sep. 11, 1984, Laser doppler velocimeter; Paul T. Ballard, 356/28.5, 28 [IMAGE AVAILABLE]
- 9. 4,210,399, Jul. 1, 1980, System for relative motion detection between wave transmitter-receiver and irregular reflecting surface; Atul Jain, 356/28.5, 4.09; 367/89 [IMAGE AVAILABLE]
- 10. 4,113,388, Sep. 12, 1978, Optical apparatus for determining relative positioning of two members; John William Charles Gates, et al., 356/356; 250/237G; 356/354, 363 [IMAGE AVAILABLE]
11. 3,874,796, Apr. 1, 1975, Method of surface contouring; Joseph L. Chovan, et al., 356/359; 101/DIG.37; 250/550; 356/356, 390; 359/437, 561 [IMAGE AVAILABLE]

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12. 3,870,414, Mar. 17, 1975, METHOD FOR SENSING SURFACE DISPLACEMENT
ORTHOGONAL TO THE DIRECTION OF OBSERVATION; Donald E. Coffey, 356/359;
73/655; 250/550; 356/356, 390; 359/559 [IMAGE AVAILABLE]

13. 3,572,882, Mar. 30, 1971, VARIABLE REFERENCE PHASE HOLOCAMERA TO
COMPENSATE FOR OBJECT MOTION; Don B. Neumann, 359/10; 250/201.9;
356/28.5, 347 [IMAGE AVAILABLE]

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ON)
L9 13 S L8 AND L7
L10 162 S L7 AND (POSITION SENS? OR DETECT?)
L11 41 S L7 AND (POSITION) (3A) (SENS? OR DETECT?)
L12 3 S L11 AND (BACKSCATTER? OR BACK SCATTER?)
L13 18 S L11 AND POLARIZ?
L14 11 S L10 AND L8
L15 4 S L11 AND L8

=> d 19 1-; d 112 1-; d 113 1-; d 1-

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12. 3,870,414, Mar. 11, 1975, METHOD FOR SENSING SURFACE DISPLACEMENT ORTHOGONAL TO THE DIRECTION OF OBSERVATION; Donald E. Duffy, 356/359; 73/655; 250/550; 356/356, 390; 359/559 [IMAGE AVAILABLE]

13. 3,572,882, Mar. 30, 1971, VARIABLE REFERENCE PHASE HOLOCAMERA TO COMPENSATE FOR OBJECT MOTION; Don B. Neumann, 359/10; 250/201.9; 356/28.5, 347 [IMAGE AVAILABLE]

→ 1. 5,459,570, Oct. 17, 1995, Method and apparatus for performing optical measurements; Eric A. Swanson, et al., 356/345, 357, 360 [IMAGE AVAILABLE]

2. RE 34,121, Nov. 3, 1992, Method and system for correcting random walk errors induced by rate reversals in a dithered ring laser gyroscope; Rodney W. Benoist, 356/350; 372/94 [IMAGE AVAILABLE]

3. 4,844,615, Jul. 4, 1989, Method and system for correcting random walk errors induced by rate reversals in a dithered ring laser gyroscope; Rodney W. Benoist, 356/350 [IMAGE AVAILABLE]

1. 5,636,017, Jun. 3, 1997, Optical detection arrangement for small volume chemical analysis of fluid samples; Alfredo E. Bruno, et al., 356/246, 440 [IMAGE AVAILABLE]

2. 5,568,256, Oct. 22, 1996, Method and apparatus utilizing an optical stage for topographic surface analysis; Klaus Korner, et al., 356/359, 353, 354 [IMAGE AVAILABLE]

3. 5,528,390, Jun. 18, 1996, Exposure apparatus for reproducing a mask pattern onto a photo-sensitive surface of a substrate using holographic techniques; Akihiro Goto, et al., 359/12, 30, 35 [IMAGE AVAILABLE]

4. 5,506,684, Apr. 9, 1996, Projection scanning exposure apparatus with synchronous mask/wafer alignment system; Kazuya Ota, et al., 356/401; 250/548; 356/349, 363 [IMAGE AVAILABLE]

→ 5. 5,489,986, Feb. 6, 1996, **Position detecting** apparatus; Nobutaka Magome, et al., 356/401, 363 [IMAGE AVAILABLE]

6. 5,459,570, Oct. 17, 1995, Method and apparatus for performing optical measurements; Eric A. Swanson, et al., 356/345, 357, 360 [IMAGE AVAILABLE]

7. 5,432,605, Jul. 11, 1995, Interferometric cylinder sizing and velocimetry device; Amir A. Naqwi, et al., 356/357, 73.1, 345, 349 [IMAGE AVAILABLE]

✶ 8. 5,426,498, Jun. 20, 1995, Method and apparatus for real-time speckle interferometry for strain or displacement of an object surface; Steven R. J. Brueck, et al., 356/35.5; 73/800; 356/357 [IMAGE AVAILABLE]

9. 5,392,121, Feb. 21, 1995, Speckle interferometry spatial filters or the like to achieve using phase selection; Kotaro Hosaka, et al., 356/360, 351 [IMAGE AVAILABLE]

10. 5,341,205, Aug. 23, 1994, Method for characterization of optical waveguide devices using partial coherence interferometry; Matthew N.

McLandrich, et al., 356/73.1, 357, 358 [IMAGE AVAILABLE]

11. 5,272,501, Dec. 21, 1993, Projection exposure apparatus; Kenji Nishi, et al., 355/53, 43, 71; 356/401 [IMAGE AVAILABLE]

12. 5,227,862, Jul. 13, 1993, Projection exposure apparatus and projection exposure method; Yoshitada Oshida, et al., 356/363, 349, 351, 358 [IMAGE AVAILABLE]

13. 5,171,999, Dec. 15, 1992, Adjustable beam and interference fringe position; Koichiro Komatsu, et al., 250/548; 356/401 [IMAGE AVAILABLE]

14. 5,165,045, Nov. 17, 1992, Method and apparatus for measuring displacement having parallel grating lines perpendicular to a displacement direction for diffracting a light beam; Steven A. Eselun, 250/237G; 356/374 [IMAGE AVAILABLE]

15. 5,151,750, Sep. 29, 1992, Alignment apparatus; Nobutaka Magome, et al., 356/401; 257/797 [IMAGE AVAILABLE]

16. 4,952,058, Aug. 28, 1990, Method and apparatus for detecting abnormal patterns; Minoru Noguchi, et al., 356/237, 394, 446 [IMAGE AVAILABLE]

17. 4,929,077, May 29, 1990, Interferometric range finder; Andre Huisen, 356/4.09, 358 [IMAGE AVAILABLE]

18. 4,541,697, Sep. 17, 1985, Ophthalmic testing devices; Paul W. Remijan, 351/211, 205 [IMAGE AVAILABLE]

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